Day 29
Reading and Debugging Code
Announcements

- Lab #4 due tonight at 11:59pm
- Lab #5 will be released ASAP
Recap

- Last time we started looking at the MusicRater web app
  - It is a larger application than we are used to, with 4 different files, many functions, and some new things we have not seen yet
  - 2 version (so far): 1.0 uses CSV files to store data, and 2.0 uses DB
- Being able to get at least a baseline understanding of what is happening by reading code is an important skill to have
  - Even if you don't know exactly what it is doing, you should be able to at least make a reasonable guess, and formulate targeted questions
Read through MusicRater a bit more... Ask questions about the code!!!
MusicRater Code

Four main files:

1. main.py: The Python server code, uses bottle
2. index.html: The code for the webpage...looks surprisingly empty
3. myCode.js: Makes the webpage interactive AND generates HTML
4. ratings.py: Reads and Writes the persistent data to files (CSV or DB)
New Things

Other than the amount of code, the new things are very few in number:

1. Hyperlink HTML elements: `<a href="www.buffalo.edu">UB</a>`
2. Adding new HTML elements to an existing file (see `generate_song_html` and `generate_button_html` in `myCode.js`)
Now what if something goes wrong?

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Like with many things we've discussed...don't dive right into the code!
Now what if something goes wrong?

At this point you are like a detective...you have some clues (things aren't behaving like you expect), and you need to find the cause

1. **Gather up your evidence first:** What is the symptom that you noticed, what pieces of information do you already have (console output)
   - **Start thinking big picture first:** Think conceptually about what different pieces of functionality exist, and how they interact
   - **Think big to small:** Think about files first, then after you've narrowed things down think about functions, then about individual lines